SUSTAINABLE MANAGEMENT OF CHESTNUT FORESTED AREAS IN HIGH FOREST AND COPPICE SYSTEMS

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Since 2002 a AGRO research project, supported by European Community, is being developed aimed to propose and to validate models for chestnut forests sustainable management in two subsystems: high forest and coppice. The management has been based in silvicultural techniques having in view the conservation and rational utilization of soil as well as the suitable account for biomass, tree incorporated and lift annual soil restored nutrients, including good environmental practices, promoting seedling, assuring the ecosystem continuity, health and vitality.

We also intended in this project to evaluate the productive potentiality of *Castanea sativa* Mill., through the establishment of volume and biomass prediction equations, modeling the relationship of tree height to diameter at breast height and defining site index

At the present time and for the high forest subsystem, dendrometrical measurements were made in all standing trees from installed plots already existent in communal old stands where, we also felled some trees for characterization and account of biomass by components. A final cut was applied in one of those stands and, data altogether, is being statistically processed for productive potentiality evaluation. Still for high forest, dendrometrical measurements were made in all 15 new 3000m^2 plots installed in forest producers owned properties and equally distributed by 5 empirically defined productive levels. One of these young plots was the stage for a forest producer's demonstration action on stand improvement.

For the coppice subsystem, management models have been made available and discussed *in situ* with forest technicians and producers by means of another demonstration action.

Key Words: *Castanea sativa* Mill.; Research project; Sustainable management; Productive potentiality.